SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING(IoT and Cybersecurity Including BCT)

COURSE NAME : Cloud Service Management /19OE219

IV YEAR / VII SEMESTER

Unit II-
Topic : Cloud service capacity Planning

Cloud capacity planning aims to match demand with available resources.

- It analyzes what systems are already in place, measuring their performance and predicting demand. Your organization can then provision and allocate cloud resources based on that demand.

- Capacity Planner provides visibility into your project's use of virtual machine (VM) instance resources, including vCPUs, RAM, and local SSD.

Evaluate
- To achieve optimal performance cost-effectively, you must first evaluate your workload capacity requirements.
- Evaluating your current workloads before moving them to the cloud is essential. It is important to think about why workloads change and what happens when they do.

Review
- Your review should include instances when your usage spikes, as well as an assessment of how often these spikes occur, how big they are, and how long they last. Via utilization patterns, you can identify spikes and dips in server, application, and system usage

Strategize
- To develop a cloud capacity planning strategy, you should assess your past infrastructure and capacity through feedback from business stakeholders.
- Whenever possible, automate the provisioning and deployment of cloud resources as part of your strategy.

Cloud service capacity Planning

Ensure

- Make sure your quotas match your capacity needs. A quota is a specific countable resource, like how many load balancers your projects can use simultaneously.
- Your goal in your cloud capacity planning effort should be to support business goals.
- You should be able to tell users what will happen with the cloud in three to six months regarding cost, response time, and availability.

Benefits of Cloud Capacity Planning

You can derive a number of benefits from cloud capacity planning, including:

Reduction of Costs

A strategic cloud capacity plan helps IT anticipate and plan for changes that may affect cloud resource management. Your IT team can better control, track, and adjust resource capacity, consumption, and related budgets or quotas when they understand business priorities and plans.

Application Performance
Poor performance can lead to negative user experiences and increased customer churn. As part of strategic cloud capacity planning, IT can find and fix performance bottlenecks from systems and applications. Additionally, cloud capacity planning helps you find cost-effective ways to achieve optimal performance.

Agility
Your IT team can effectively plan for unforeseen spikes in demand using historical data and usage patterns as part of effective cloud capacity planning.

Cloud Capacity Planning and Synopsys

Cloud capacity planning can aid any organization that uses cloud computing to improve performance. Chip makers and small businesses looking to leverage the cloud for their chip projects can benefit immensely from cloud capacity planning.
With [Synopsys Cloud's FlexEDA model](), you can free yourself from capacity and license limitations. Since Synopsys Cloud unshackles all capacity constraints, projects can be broken into faster cycles with more time spent on innovating and less on scheduling. At the same time, you need to plan your cloud capacity to ensure your chip projects run smoothly.